

## **REMARKS AND DISCUSSION**

Upon entry of the present Amendment B, claims 1-26 are pending in the application, of which claims 1 and 14 are independent.

Claims 1-3 and 14-16 are amended herein. In addition, paragraph 044 of the specification is also amended herein. The applicant respectfully submits that all of the above amendments are fully supported by the original specification, including the drawings and claims. The applicant also respectfully submits that no new matter is introduced by the above amendments.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment B is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

## **IN THE SPECIFICATION**

At item 2 of the Office Action, the Examiner objected to the specification under 35 USC 132(a), and particularly objected to the amendment to the specification filed on 10/27/2006. The Examiner stated that the limitation added to paragraph 44 introduced new matter into the specification.

The applicant disagrees that the offending limitation "As will be understood from the foregoing, the network functions independent of a host in that the BT modules perform cable communication irrespective of which is master/slave" introduces new matter into the application. The applicant notes that the disclosure of the Bluetooth specification, accessible via [www.bluetooth.com](http://www.bluetooth.com), was incorporated by reference into the application. This website states that

“Bluetooth enabled electronic devices connect and communicate wirelessly through short-range, ad hoc networks known as piconets. Each device can simultaneously communicate with up to seven other devices within a single piconet. Each device can also belong to several piconets simultaneously. Piconets are established dynamically and automatically as Bluetooth enabled devices enter and leave radio proximity”, and also states that “During typical operation, a physical radio channel is shared by a group of devices that are synchronized to a common clock and frequency hopping pattern. One device provides the synchronization reference and is known as the master. All other devices are known as slaves. A group of devices synchronized in this fashion form a piconet. This is the fundamental form of communication for *Bluetooth* wireless technology.” Note that network operation does not require a network administrator, or host.

It is also noted that, at paragraph 28 of the specification, the applicant discloses that a relay device can function as both a master and a slave, and at original claim 1, lines 3-5, recites that each Bluetooth module on a relay is capable of a cable communication irrespective of which is a master or slave. The applicant submits that these disclosures, each part of the original specification, make inherent the limitation in which the network functions independent of a host in that the BT modules perform cable communication irrespective of which is master/slave.

However, although the applicant disagrees that new matter has been added to the specification, in order to promote the prosecution of the application, the applicant has further amended paragraph 44 of the specification as requested by the Examiner. That is, the limitation added to paragraph 44 in the applicant’s previous response and objected to by the Examiner, has been deleted. As a result, the objection to the specification is obviated.

## **IN THE CLAIMS**

### **Claim Rejections – 35 USC 112**

At item 4 of the Office Action, the Examiner rejected claim 1 under 35 USC 112, first paragraph, as failing to comply with the written description requirement, and further stated that claims 1 and 14-16 are not properly described in the application as filed.

The applicant disagrees with the rejection under 35 USC 112, first paragraph, for the reasons presented above with respect to the applicant's arguments against the objection to the specification. Those reasons are incorporated by reference herein.

However, in order to promote the prosecution of the application, the applicant has amended claims 1 and 14-16 herein. In particular, these claims are amended to delete the phrase "said network being configured to function independent of a host", whereby the rejection is obviated.

### **Claim Rejections – 35 USC 103**

At item 6 of the Office Action, the Examiner rejected claims 1-8, 10-21 and 23-26 under 35 USC 103(a), as being anticipated by Lempio (US 6,831,896) in view of Hlasny (US Pat. Pub. 2006/0129679). In the rejection of claim 1, the Examiner states that the wireless network system of Lempio includes each of the claimed limitations but does not explicitly show that the first piconet and second piconet structure a network, the network configured to function independent of a host. The Examiner cites Hlasny as being from the same field of endeavor, and as teaching that a first and second piconet structure a network, the network configured to function independent of a host (page 3, [0052]). The Examiner considers it obvious to modify Lempio to use the first piconet and the second piconet structure a network, the network being configured to function independent of a host, as taught by Hlasny, in order to provide an electronic device that

is adapted to communicate with a first device network and to communicate with a second device that is part of a second network.

#### Applicant's Response

The applicant has amended claims 1-3 and 14-16 herein to more distinguish the applicant's invention from that shown in the prior art, including Lempio, Hlasny and their combination. In particular, the claims are amended to recite that the each of the relays is mounted on a vehicle. Specifically, the relays are mounted on different vehicles, permitting the terminal devices used by operators of the first vehicle to communicate with terminal devices used by operators of the second vehicle, even while the vehicles are traveling. This feature is clearly not disclosed by Lempio. Lempio discloses plural wireless transceiver beacons 14 connected directly or indirectly with a host 12, the host 12 being responsible for routing data to the beacons 14 and interfacing the network (host 12 and beacons 14) to an external network such as the internet. The host 12 is exemplified by a personal computer. Lempio discloses land-based, static beacons, as reflected in the preferred embodiment of the beacon shown in Figs. 3A and 3B, in which the beacons include a two-prong connector electrical interface for obtaining power from a standard electrical outlet (col. 4, lines 51-55). Lempio further describes the beacons 14 being used as a position reference for mobile devices (ie, telephones, PDAs) (col. 5, lines 64-66), and describes that when the mobile devices change locations during normal use, the mobile device may access the network via different beacons, depending on the position of the device as it moves through the network coverage area (col. 6, lines 36-44). Thus, Lempio discloses a network in which the relays (beacons) are fixed in space, and does not suggest a network which is mounted on vehicles so as to move through space.

The Examiner cites Hlasney in the rejection of claim 1 for the disclosure of first and

second piconets structuring a network and functioning independent of a host. The applicant finds that Hlasney is directed to providing a pseudo-random scheduler for scheduling communication periods between electronic devices. Hlasney discloses devices such as a vending machine, telephone, door lock, temperature sensor, motor, switch, printer, fax machine, refrigerator, health monitor, security systems, and a thermostat (page 3, para. 43) as corresponding to devices which would be included in the disclosed communication network. Although Hlasney does not expressly disclose a fixed network, the electronic devices (ie, refrigerators) disclosed by Hlasney for use in the communication system are not those which would be used in a non-fixed network, as is now clearly claimed by the applicant.

As regards claims 4-8, 10-13, 17-21 and 23-26, the applicant disagrees with the rejections of these claims for the reasons stated above with respect to claims 1 and 14, from which these claims directly or indirectly depend.

The applicant submits that as amended, claims 1-8, 10-21, and 23-26 are clearly distinguished over the disclosure of Lempio alone or as modified by Hlasney, and applicant therefore respectfully requests reconsideration and withdrawal of the Examiner's rejection of claims 1-8, 10-21, and 23-26.

**At item 5 of the Office Action, the Examiner rejected claims 9 and 22 as being unpatentable over Lempio in view of Hlasney, and further in view of Tuomela (US Pub. 2003/0235179).** The Examiner states that: Lempio and Hlasney, in combination, teach the wireless network system of claims 1 and 14 as discussed above, but fail to explicitly show that an SCO link or an ACL link is established between Bluetooth® modules; in the same field of endeavor, Tuomela teaches an SCO link or an ACL link is established between the Bluetooth® modules (page 1 [0005]); and thus it would have been obvious to one of ordinary skill in the art

at the time the invention was made to use an SCO link or an ACL link established between Bluetooth modules as taught by Tuomela in order to provide wireless relay networks an extended operating range of a local RF system by using specific LPRF communication devices referred to as relay devices to interface with and provide communication between two or more user's communication devices.

#### Applicant's Response

Applicant has carefully considered the Examiner's rejection and applicant respectfully disagrees and request reconsideration thereof for those reasons as discussed above with respect to claims 1 and 14, which are not overcome by any additional teachings of Tuomela.

Further, applicant respectfully submits that the proposed modification of Lempio's short range RF network based on a select teaching of Tuomela is improperly based on a suggestion coming entirely from the Examiner (guided by impermissible hindsight of applicant's disclosure), rather than on any teaching or suggestion which may be fairly gleaned from the references themselves. The system of Tuomela is a system used to reduce the interference caused when there are multiple Bluetooth relay devices used in a network. The system of Tuomela avoids such interference by setting all of the relay devices as masters and one of the relays is given control over the others so as to enforce that all the Bluetooth® modules to time their receptions so that no simultaneous transmission by another module occurs. This is clearly contrary to the invention of Lempio, in which the host 12 is responsible for routing data to the beacons in the network (col. 3, lines 21-23) and in which a routing mechanism is used by the host 12 to select the most favorable transmission path among available paths for communicating data to the host, whereby the possibility of interference is eliminated.

Correspondingly persons of ordinary skill in the art would not consider it obvious to

hypothetically modify Lempio's system by the teachings of Tuomela, as proposed by the Examiner, because the modification would effectively destroy Lempio's disclosed/claimed invention. Thus, there is no motivation to modify the invention of Lempio by the teachings of Tuomela.

Applicant also respectfully submits that even if the Examiner's assertion that it would be obvious to combine the two references is accepted, any hypothetical combination resulting from the actual teachings of these references would still fail to achieve or make obvious the invention of the independent claims because they still do not teach each and every aspect thereof, e.g., the features of the amended claims discussed above. Therefore, applicant respectfully requests that the rejection of claims 9 and 22 as being unpatentable under 35 USC 103(a) be reconsidered and withdrawn.

### **Conclusion**

Based on all of the foregoing, applicant respectfully submits that all of the rejections set forth in the Office Action are overcome, and that of the pending claims are believed to be allowable over all of the references of record, whether considered singly or in combination. Applicant requests reconsideration and withdrawal of the rejections of record, and allowance of the pending claims.


The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

The present amendment is being concurrently filed with a Request for Continued Examination (RCE) and fee for same is being paid online via EFS-Web.

If the Examiner is not fully convinced of the allowability all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable consideration is respectfully requested.

Respectfully submitted,



William Blackman  
Attorney for Applicant  
Registration No. 32,397  
(248) 344-4422

Customer No. 21828  
Carrier, Blackman & Associates, P.C.  
24101 Novi Road, Suite 100  
Novi, Michigan 48375  
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